

## **LEDome**

IR DAY/NIGHT DOME CAMERA  
EXTERNAL IR LEDS & CDS SENSOR  
BUILT-IN HEATER / WEATHERPROOF  
COMPOSITE AND UTP VIDEO OUTPUTS



**speco technologies**™

200 New Highway  
Amityville, NY 11701  
631-957-8700

## INDEX

• Check list	-----	1
• Cautions	-----	2
• Features	-----	3
• Installation	-----	4
• Adjustment of Led Array	-----	5
• Operation & wiring diagrams	-----	6~7
• Internal Components	-----	8
• Function Selection	-----	9~14
• Dimension	-----	15
• Specification	-----	16

## CHECK LIST

- Please make sure that the following items are included in the package:

LEDome Camera

4 Mounting Screws

1 Allen Wrench

1 Allen Bit

1 Video Test Cable

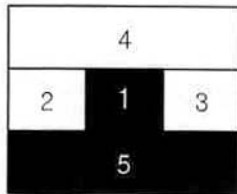
1 Power Cable Adaptor (for optional use)

Please leave this manual with the end-user for future reference.

## Function Selection

### 2 . BLC-Back light compensation.

Use if there is a strong light or sunshine behind the object.  
The coverage of BLC is center plus bottom, as below.



1=FIX

### 3 . F/L- Flicker Less

**ON** : Locks the electronic shutter to 1/100 and allows the auto iris full control of light adjustment

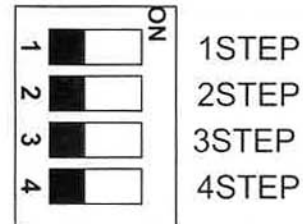
### 4 . L/L- Line Lock

Syncs the camera to the 60 Hz phase of the electrical circuit.

Can only be used in 24-Volt AC operation. If a camera shows a wavy or unstable picture make sure that L/L is turned "off"

## Function Selection

### (5) LUX DIP SWITCH



### . LUX DIP SWITCH.

Tells the camera when to switch to the B/W night mode.

**Note: Only one switch can be in the "on" position at a time..**

#1 - The camera will switch at 1/2 lux

#2 - The camera will switch at 1 lux

#3 - The camera will switch at 3 lux

#4 - The camera will switch at 5 lux

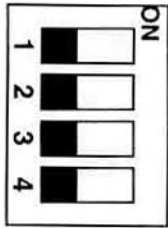
### (6) ALRAM SWITCH 1,2

MICRO-SWITCH FOR ALARAM - Select N/O or N/C

## Function Selection

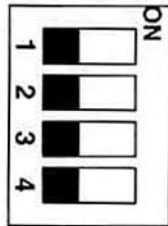
- Default settings of the internal DIP switches

### (4) Function DIP SWITCH



- 1.ELC
- 2.BLC
- 3.F/L
- 4.L/L

### (5) LUX DIP SWITCH



- 1SETP
- 2SETP
- 3SETP
- 4SETP

Adjust the DIP switches to suit the requirements of your installation.

## Function Selection

### Switch Mode Function

### (5) DIP SWITCH



- 1.ELC
- 2.BLC
- 3.F/L
- 4.L/L

#### • 1. ELC- Electronic light compensation.

ON: Electronic Shutter is active

OFF : Electronic shutter is locked at 1/60, and the DC Auto Iris is in complete control of the light adjustments

# INSTALLATION

## Connections:

1. When using 12-Volts DC (constant voltage 600mA)  
-CONNECT POWER TO THE POWER JACK.



2. When using 24-Volts AC (40 VA)  
-CONNECT ACCESSORY CABLE TO THE POWER JACK AND  
CONNECT AC 24V TO THE LEAD.

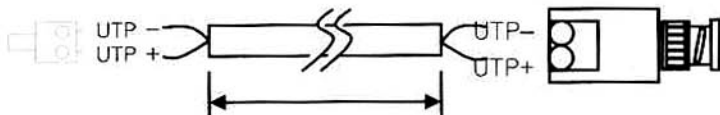


3. CONNECT VIDEO CABLE  
-CONNECT BNC CABLE TO THE BNC JACK.

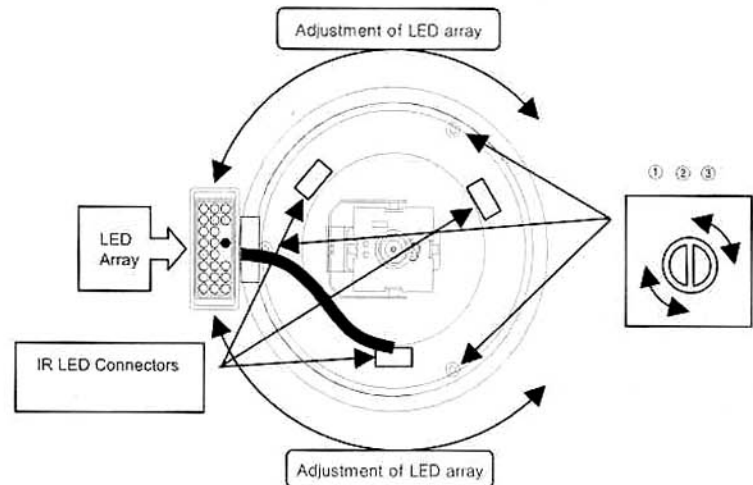


**Note:** All connections can be made directly to the PCB if desired

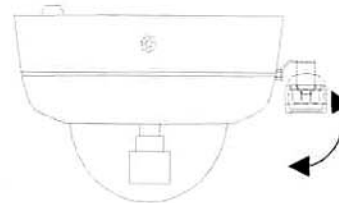
4. CONNECT UTP CABLE (if desired)  
This wires directly to the PCB in the dome housing.



# Adjustment of LED Array



1. Install the dome camera and aim the Vari-focal lens.
2. Loosen ①-③ Led array fixing screw.
3. Aim the IR LED array in the direction that the camera is looking.
4. Connect the IR LED array to the closest connector on the PCB.
5. Tighten the IR LED array using the three screws.



1. Loosen the set-screw located on both sides of the IR LED array box.
2. Aim the IR LED array in the same direction as the lens.
3. Tighten both set-screws on the IR LED array.

## CAUTIONS

- **LEDome should only be installed by qualified personnel**
- **Please use only a 24-Volt AC or a 12-Volt DC Power supply**
- **To prevent a fire or electrical hazard please use proper power cables**
- **Please make sure that the ceiling or wall is strong enough to hold the weight of the camera**
- **The Dome Cover should be treated with care**
- **Do not clean the cover with an abrasive cleaning material**  
- Please use a soft cloth or tissue to clean the dome cover
- **There are no user-serviceable parts inside. Please do not disassemble this camera other than to make initial adjustments.**

## FEATURES

- WEATHERPROOF & TAMPER-RESISTANT
- DIP SWITCHES FOR BLC, ELC, F/L & LINE-LOCK
- DUAL VOLTAGE: 24-VOLTS AC / 12-VOLTS DC
- MECHANICAL IR FILTER FOR DAY/NIGHT FUNCTION
- 1/3" SONY EXVIEW CCD SENSOR
- AUTO IRIS DAY/NIGHT DC VARIFOCAL LENS (4mm-9mm)
- TURBO AGC
- BUILT-IN ALARM AND TAMPER SWITCHES
- 360 DEGREE ADJUSTABLE IR LED ASSEMBLY.
- VIDEO TEST CONNECTOR FOR EASY INSTALLATION
- DAY/NIGHT LUX LEVEL SELECTION SWITCH TO CUSTOMIZE YOUR INSTALLATION
- BUILT-IN HEATERS
- BUILT-IN 25 IR LED'S & CDS SENSOR
- (OPTIONAL LARGER HEADS ARE AVAILABLE FOR GREATER RANGE)
- UTP AND COMPOSITE VIDEO OUTPUTS
- HANGING STRAP FOR DOME COVER
- NO REFLECTION FROM THE IR LEDs

Note : Specification are subject to change without notice.

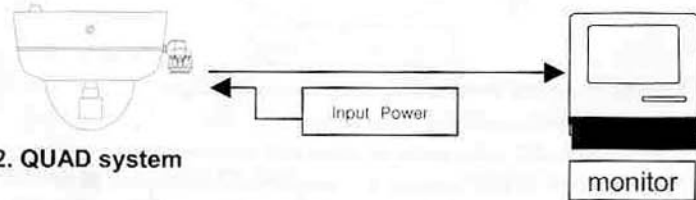
## Operation & wiring diagram

### How to operate

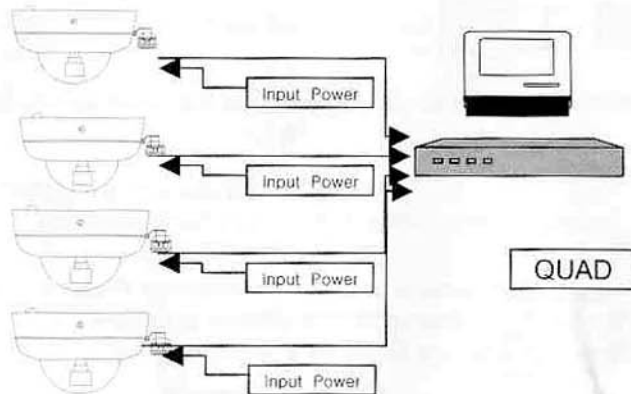
1. Set the direction, zoom and focus of the camera. Make any necessary internal dip-switch settings.
2. Connect the video and power leads.

#### System Configurations:

##### 1. Single system

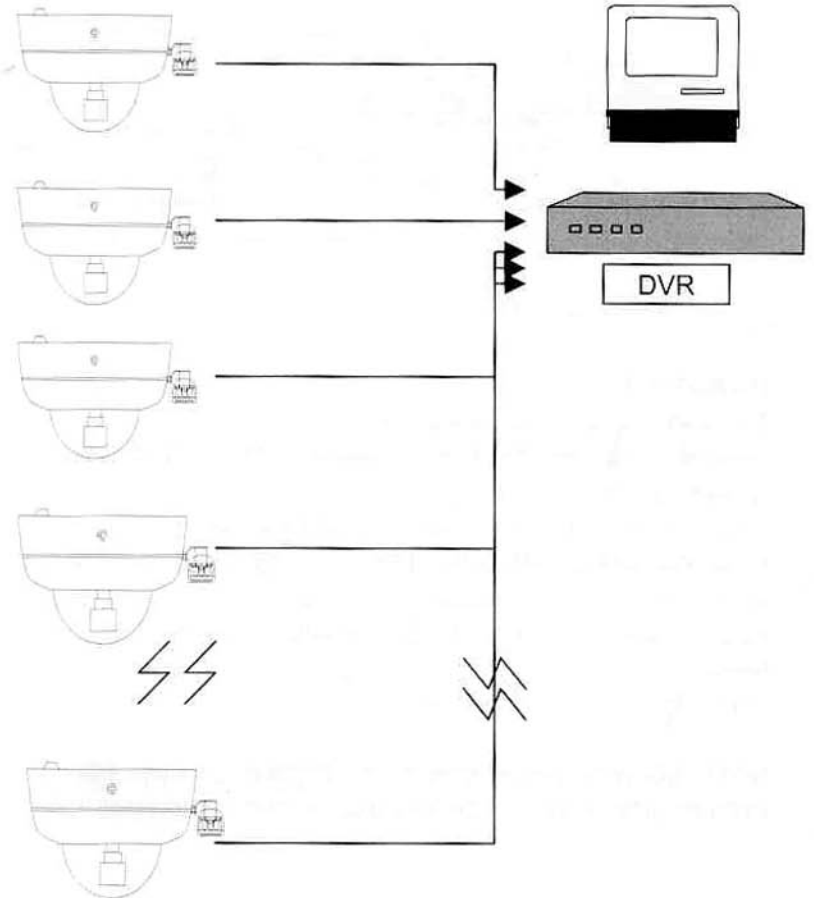


##### 2. QUAD system



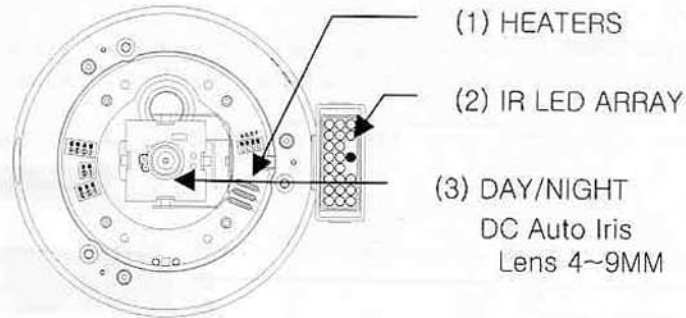
## Operation & wiring diagram

### 2. DVR system



## Internal Components

### 1. Structure



#### (1) HEATERS

To prevent moisture and extend the operating range of the camera. The heaters are thermostatically controlled.

#### (2) IR LED'S

Infrared LED'S activate needed. Optional heads are available.

#### (3) DAY/NIGHT DC AUTO-IRIS LENS

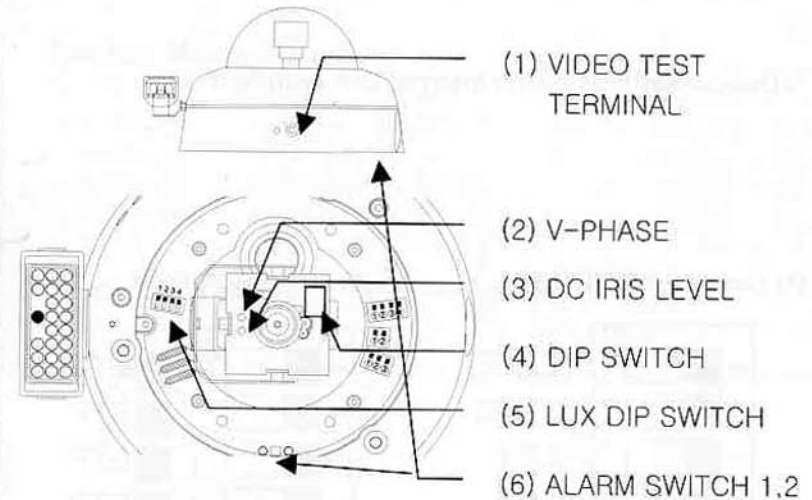
Mechanical IR filter exchange

Adjust between T $\leftrightarrow$ W (TELE  $\leftrightarrow$  WIDE) to set the angle (focal length)

Set the focus by adjusting  $\infty\leftrightarrow$ N

**NOTE: BOTH OF THE ABOVE ADJUSTMENTS GET LOCKED INTO POSITION THROUGH THE USE OF "LOCKING HANDLES".**

## Function Selection



#### (1) VIDEO TEST TERMINAL

Allows you to connect a test monitor for making adjustments.

#### (2) V-PHASE LEVEL

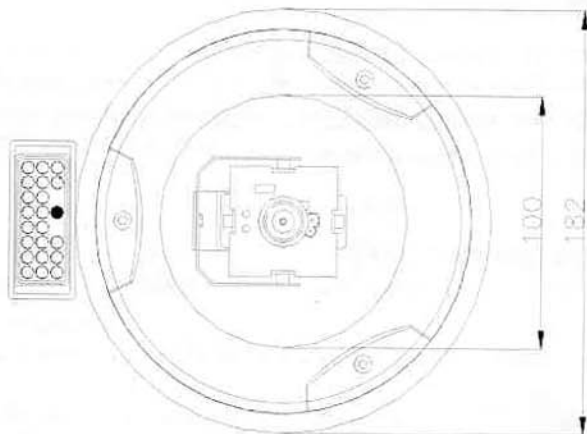
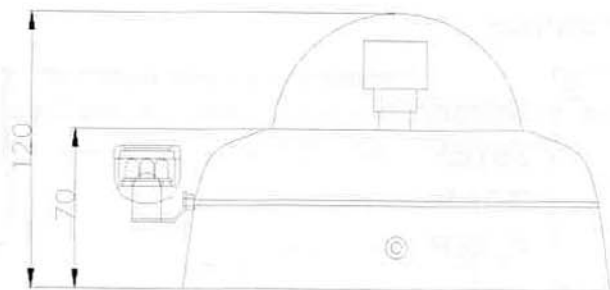
When desired, the vertical phase may be adjusted to sync the vertical phase of the camera with other cameras in the system. This feature is only available in 24 volt AC operation.

#### (3) DC IRIS LENS LEVEL

DC IRIS level adjustment for the auto iris lens.



## DIMENSION



## SPECIFICATION

IMAGE SENSOR	1/3" SONY EX-VIEW CCD
TV SYSTEM	NTSC
SCANNING SYSTEM	2:1 INTERLACED
SYNC SYSTEM	LINE LOCKED/ADJUSTABLE V-PHASE LINE LOCK /INTERNAL ON-OFF
RESOLUTION	480 TV LINES
MINIMUM ILLUMINATION	0.03 LUX(IR OFF) / 0.00 (IR ON)
CDS SENSOR	PHOTOCONDUCTIVE CELLS ADJUSTABLE IN 4 STEPS
S/N RATIO	MORE THAN 50dB
GAMMA CHARACTERISTIC	0.45
VIDEO OUTPUTS	1.0Vp-p - 75ohm COMPOSITE - UTP Balun built-in
ELECTRONIC SHUTTER	1/60-1/100,000 sec
POWER REQUIREMENTS	24-Volts AC / 12-Volts DC
POWER CONSUMPTION	600 mA
LENS	DAY/NIGHT DC AUTO-IRIS VARIFOCAL(4mm-9mm)
OPERATIONAL TEMPERATURE	-40F to +122F
WEIGHT	2.2 Pounds

## WARRANTY

### LIMITED WARRANTY

THIS WARRANTY IS VALID ONLY ON PRODUCTS PURCHASED AND USED IN THE UNITED STATES OF AMERICA. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL USER.

SUBJECT TO CONDITIONS AND EXCLUSIONS FOUND BELOW, THIS PRODUCT IS WARRANTED AGAINST MANUFACTURING DEFECTS IN MATERIAL AND WORKMANSHIP FOR THE FOLLOWING PERIOD FOR PARTS AND LABOR:

PRO-VIDEO CAMERAS:	2 YEARS
PRO-VIDEO MONITORS:	1 YEAR
BALANCE OF PRO-VIDEO LINE:	1 YEAR*
*Time lapse VCR Drum Assemblies and Heads:	90-DAYS

WE WILL REPAIR OR REPLACE (AT OUR OPTION) ANY PARTS FOUND TO BE DEFECTIVE FOR THE WARRANTY PERIOD SPECIFIED. WE WILL PROVIDE A REPLACEMENT FOR ANY DEFECTIVE PART.

#### CONDITIONS

1. THIS WARRANTY WILL BE HONORED ONLY ON THE PRESENTATION OF THE ORIGINAL DATED BILL OF SALE OR SALES SLIP.
2. TRANSPORTATION OF THE PRODUCT TO OUR SERVICE STATION IS THE RESPONSIBILITY OF THE USER. REPAIRED OR REPLACED PRODUCT WILL BE RETURNED PREPAID DURING THE WARRANTY PERIOD.

#### EXCLUSIONS

1. THIS WARRANTY SHALL NOT COVER ADJUSTMENT OF CUSTOMER OPERATED CONTROLS AS EXPLAINED IN THE APPROPRIATE MODEL'S INSTRUCTION MANUAL OR PRODUCTS WHICH HAVE BEEN ALTERED, ABUSED, OR HAVE MISSING OR ALTERED SERIAL NUMBERS.
2. THIS WARRANTY SHALL NOT APPLY TO UNCRATING, SETUP, INSTALLATION, OR THE REMOVAL AND REINSTALLATION OF PRODUCTS AFTER REPAIR.
3. THIS WARRANTY SHALL NOT APPLY TO REPAIRS OR REPLACEMENTS NECESSITATED BY ANY CAUSE BEYOND THE RESULT OF MANUFACTURE INCLUDING, BUT NOT LIMITED TO, ANY MALFUNCTION, DEFECTS OR FAILURE CAUSED BY OR RESULTING FROM UNAUTHORIZED SERVICE OR PARTS, IMPROPER MAINTENANCE, MODIFICATION OR REPAIR BY THE USER, ABUSE, MISUSE, NEGLIGENCE, ACCIDENT, FIRE, FLOOD OR OTHER ACTS OF GOD, INCORRECT LINE VOLTAGE, DAMAGE OR IMAGE BURNS TO TELEVISION PICTURE TUBES CAUSED BY OR ATTRIBUTABLE TO THE USE OF ANY ACCESSORY, ELECTRONICS GAME OR DEVICE, OR DAMAGE CAUSED TO IMAGE PICKUP TUBES BY EXCESSIVE LIGHT.

THE FOREGOING IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES AND WE DO NOT AUTHORIZE ANY PARTY TO ASSUME FOR US ANY OTHER OBLIGATION OR LIABILITY. IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS PRODUCT, OR FOR ANY DELAY IN THE USE OF THIS PRODUCT DUE TO CAUSES BEYOND OUR CONTROL.

SOME STATES DO NOT ALLOW LIMITATIONS OF HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES. THE ABOVE LIMITATIONS ON IMPLIED WARRANTY AND CONSEQUENTIAL DAMAGES MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

NOTE: FOR YOUR PROTECTION IN THE EVENT OF THEFT OR LOSS OF THIS PRODUCT, PLEASE FILL IN THE INFORMATION REQUESTED BELOW AND RETAIN WITH YOUR SALES RECEIPT.

MODEL NO.: \_\_\_\_\_ SERIAL NO.: \_\_\_\_\_  
(LOCATED ON BACK OR BOTTOM SIDE OF UNIT)

DATE OF PURCHASE: \_\_\_\_\_

WHERE PURCHASED: \_\_\_\_\_ PURCHASE PRICE: \_\_\_\_\_

**Speco Technologies**  
200 NEW HIGHWAY  
AMITYVILLE, N.Y. 11701

FOR MORE INFORMATION REGARDING  
SERVICE OR RETURN, CALL US AT  
TOLL FREE: 1-800-645-5516  
IN METRO NY: 631-957-8700

ALWAYS USE DISCRETION WHEN INSTALLING VIDEO AND/OR AUDIO SURVEILLANCE EQUIPMENT ESPECIALLY WHEN THERE IS PERCEIVED PRIVACY, OR AN EXPECTATION OF PRIVACY. INQUIRE REGARDING FEDERAL, STATE AND/OR LOCAL REGULATIONS APPLICABLE TO THE LAWFUL INSTALLATION OF VIDEO AND/OR AUDIO RECORDING OR SURVEILLANCE EQUIPMENT. PARTY CONSENT MAY BE REQUIRED.

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